

C2PC User Feedback

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2d Marine Expeditionary
Brigade (Task Force Tarawa)

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Agend

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II Marine Expeditionary Force Information Management

- ⊕ My Recent Experiences
- ⊕ Use the Right Tool for the Job
- ⊕ What C2PC did for us
- ⊕ The Good, Bad, and the Ugly
- ⊕ User Requests
- ⊕ Programmatic Challenges
- ⊕ Where do we go from here?

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My Experiences

II Marine Expeditionary Force Information Management

- ⊕ Asst Air Officer for 2d MEB
- ⊕ Deployed with ATF East on 11 Jan
 - ComPhibGru2
 - 2d MEB
- ⊕ Arrived in Kuwait 15 Feb
- ⊕ Moved to attack positions 20 Mar

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Operation Iraqi Freedom

H Marine Expeditionary Force Information Management

⊕ An Nasiriyah

- 507th Maintenance Co
- PFC Lynch Rescue

⊕ Shaykh Hantush

- Al Hamzah
- Urban “Remote” CAS with Harrier Litening Pods

⊕ Al Amarah

- IZ Army forgot to show up

⊕ Al Kut

- Ubaydah Bin Al Jarrah / Blair Field

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The Long Boatride Home

II Marine Expeditionary Force Information Management

- ⊕ All 2d MEB onboard ship by 18 May
- ⊕ Departed Persian Gulf 19 May
- ⊕ Supported Pres Bush visit to Sharm el-Sheikh, Egypt and Aqaba, Jordan
- ⊕ Supported JTF-Liberia
- ⊕ 8-day TransLant
- ⊕ Returned 28 June 03 (total 7 weeks)

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Applications We Used

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⊕ C2PC

⊕ FalconView

⊕ ADOCS

⊕ TBMCS RWS

- Airspace Deconfliction System (ADS)
- Execution Management (EMC)
- Sortie Flow

⊕ APS (Java VM)

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What did C2PC do for us?

II Marine Expeditionary Force Information Management

Version 5.8.2 was standard

- ⊕ Geographic Reference System
- ⊕ Track Management
- ⊕ Overlay Management
- ⊕ Produce Operational Graphics
- ⊕ Routes
- ⊕ Effects Management Tools

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GeoRef Info

System

II Marine Expeditionary Force Information Management

- ⊕ Accurately Describe Landing Zones
- ⊕ Measure Distances and Bearings
- ⊕ Prepare Graphics (Black on White)
- ⊕ Found Many Errors in Documents
- ⊕ Encouraged everyone to use a GIS
 - Error rate of manual processes very high!
 - Say goodbye to paper charts (if possible)

Track

Management

II Marine Expeditionary Force Information Management

⊕ CFLCC responsible for Ground COP

- Poor Track Management Skills
- TF Tarawa HQ deleted numerous times

⊕ Blue Force Tracking

⊕ Tracks that were key:

- Army Combat Surgical Hospital
- Blue Force Tracking (Blue Force PLI)

⊕ Bandwidth: GCCS>Gateway>Client

- Need CST-type connection

Overlay

Management

II Marine Expeditionary Force Information Management

- ⊕ Generate, Transmit, Receive Overlays
- ⊕ Received from Army, I MEF
- ⊕ Hard to Maintain Version Control
 - Lack of understanding of MAGTF processes
 - If Info Management is “hard,” the processes fail
- ⊕ No “Overlay” Server visible to users
 - Control Overlay submission, versioning
 - Provide “Explorer” interface and web view

Produce Op Graphics

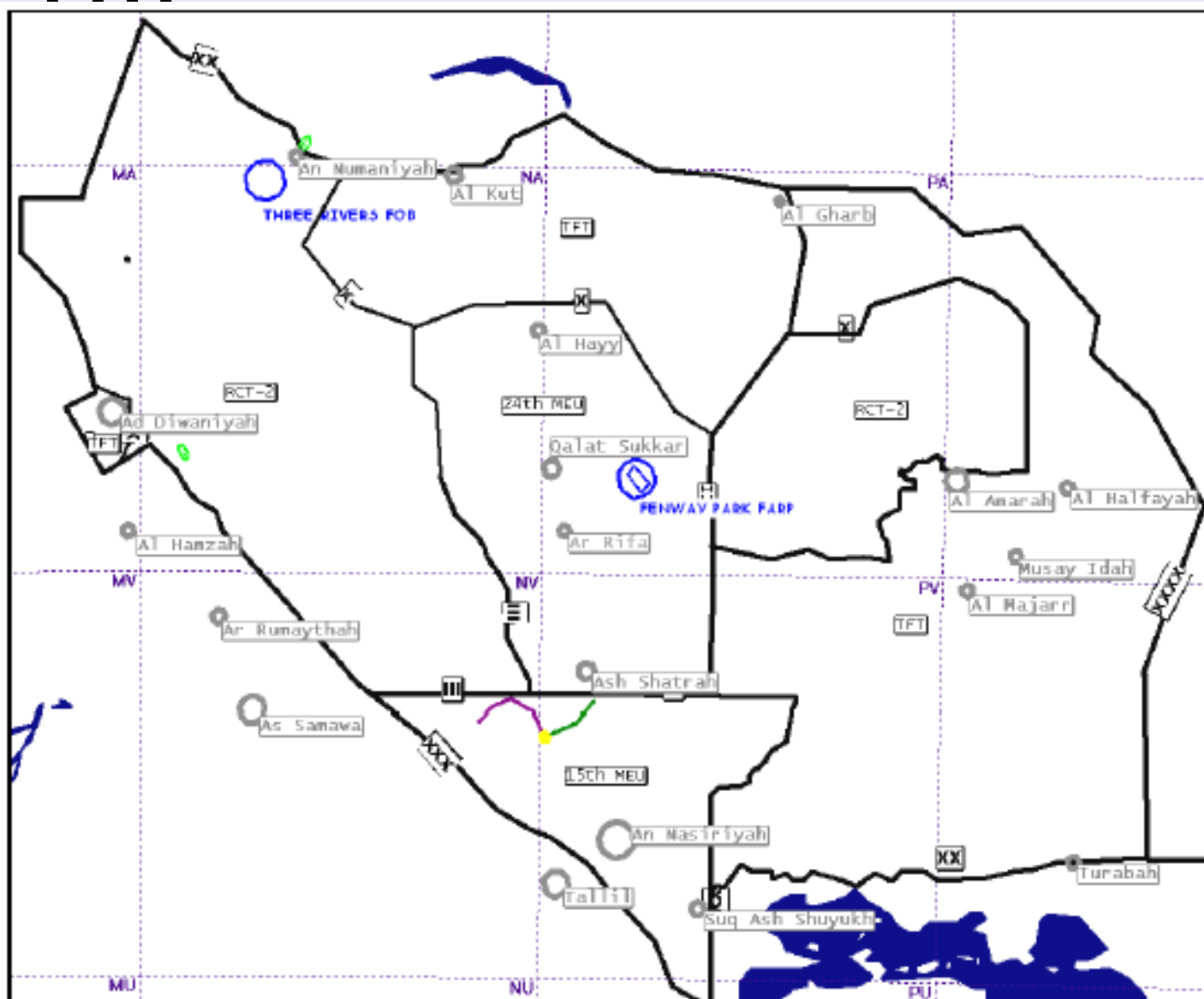
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⊕ World Vector Shoreline Map Colors

- Land=White
- Water=Blue
- Rivers=Blue
- Graphics=black+thicker line width

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The Result



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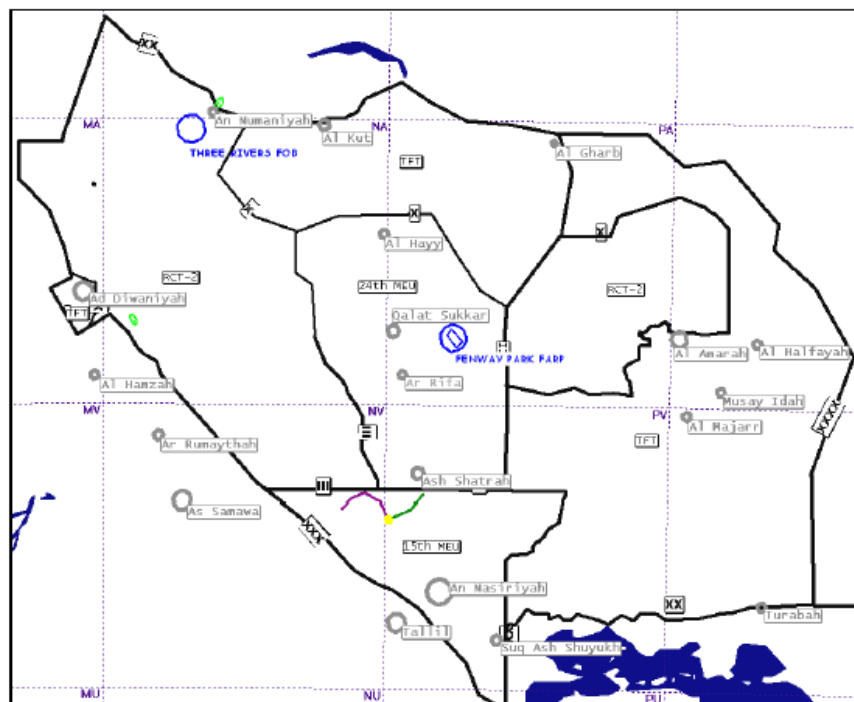
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...Which I used in

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TASK FORCE TARAWA SMART CARD (CURRENT AS OF 8 APR 03)

- Current Area of Responsibility - All ordnance delivery in zone must be CAS (terminal control) or approved by TF Tarawa COC.



Routing In/Out (RIO)

- Inbound:** from CRC or Tropical (TAOC) contact *Chieftain* (ASE-DASC) at 82AY5 (FW) or Budweiser (RW). State: Call Sign; Msn #; Position; Alt; Ordnance; Time on Station (TOS); "I have TFT Smart Card dated 8 Apr 03"
- After check in:** contact TACP on assigned TAD Net
- When mission complete:** Check out with FAC, switch *Chieftain* to pass MISREP, Intel, and BDA before contacting TAOC or other control agency.

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COMMUNICATIONS

Chieftain FW Frequencies

Primary	TATC 11	OLIVE	(freq)	Type
Secondary	TATC 12	LIME		
Tertiary	FSC 4	TFT COMMON		

Chieftain R/W FREQS

Primary	TATC 13	TEAL
Secondary	TATC 14	MINT
Tertiary	FSC 4	TFT COMMON

TAD FREQS

TAD 11	TAN	381.15	Uncov
TAD 12	KHAKI	316.75	Uncov
TAD 13	MUSTARD	296.75	Uncov
HD 9	PLUM	364.5	Uncov
HD 10	LAVENDER	244.55	Uncov
HD 11	VIOLET	317.35	Uncov

ADDITIONAL FREQS

MEF (TCP)	Grd-Air Convoy Escort/FS
MEF (TCP)	Grd-Air Convoy Escort/FS
DASC(A)	SKYCHIEF TAR/HR 1 DASC
AWACS	(see ATO) BRONZE 11

UNIT AIR OFFICERS & CALL SIGNS

TASK FORCE TARAWA	Rebel, Spock, Hoist, Cochise
TASK FORCE TARAWA COC	Rafe, Gigs, Blair, Mongo

RCT-2 AirO	Bear, Vino	1/10 (Arty) AirO	Nightmare
1/2 AirO	Koko	A Battery	Avalanche
3/2 AirO	Duck	B Battery	Brimstone
2/8 AirO	Cyclops	C Battery	Conan
2d Recon Bn	Soup	15th MEU AirO	Squash
2d LAR	Vino	BLT FAC	Gas
2d Force Recon	Rooster/Mac	24th MEU AirO	SweetLu
		BLT FAC	Jeb

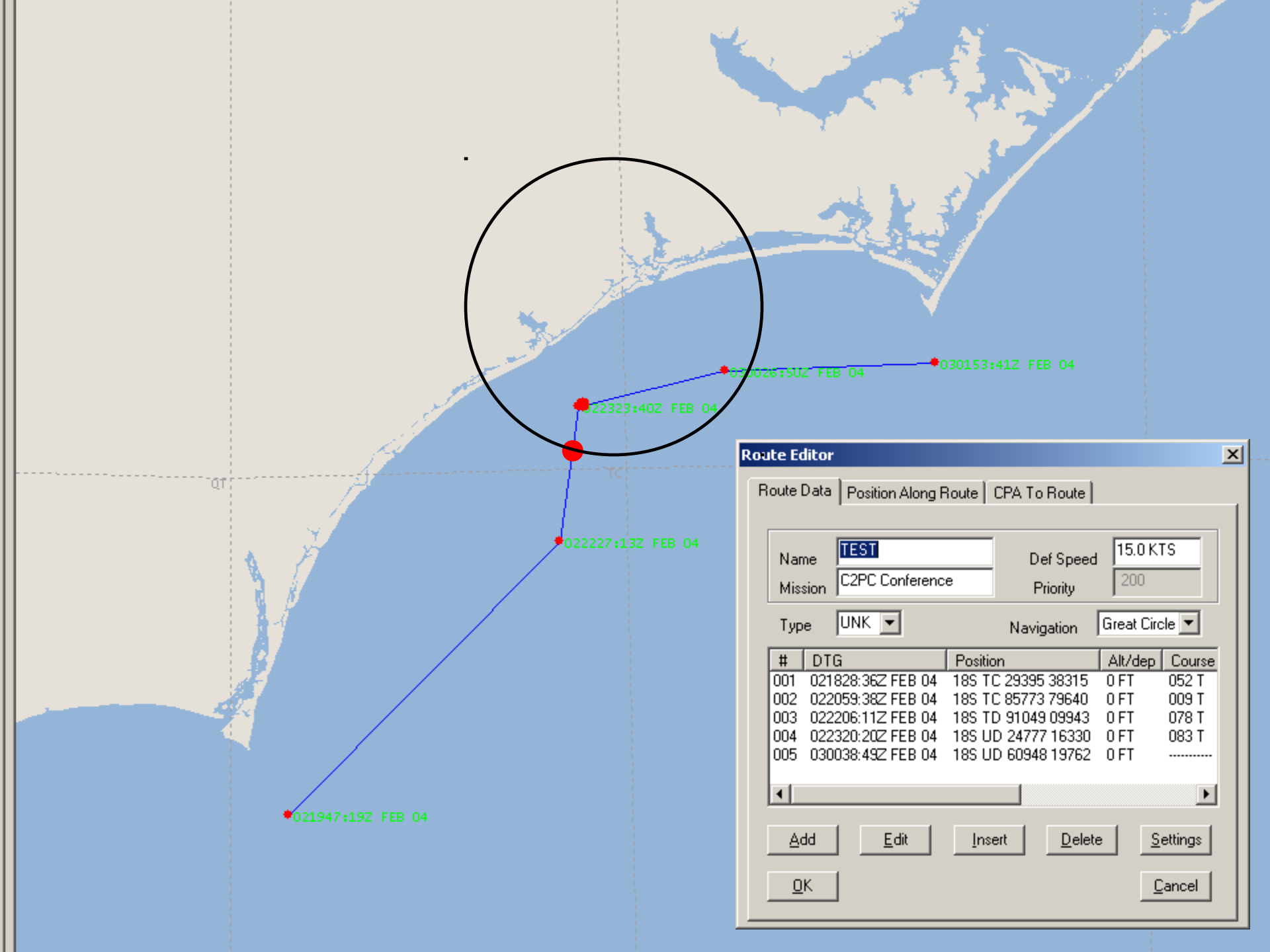
Route

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II Marine Expeditionary Force Information Management

- ⊕ Used routes to determine ETA to launch points for helos (e.g. Sicily)
- ⊕ Received nav points from Ship's Navigator via e-mail
- ⊕ Route tool not very user-friendly
 - If I enter the time, it should calculate speed
- ⊕ ECDIS is the system Navy is using
 - May need to import ECDIS routes

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Route Editor

Route Data

Position Along Route

CPA To Route

Name

TEST

Def Speed

15.0 KTS

Mission

C2PC Conference

Priority

200

Type

UNK

Navigation

Great Circle

#	DTG	Position	Alt/dep	Course
001	021828:36Z FEB 04	18S TC 29395 38315	0 FT	052 T
002	022059:38Z FEB 04	18S TC 85773 79640	0 FT	009 T
003	022206:11Z FEB 04	18S TD 91049 09943	0 FT	078 T
004	022320:20Z FEB 04	18S UD 24777 16330	0 FT	083 T
005	030038:49Z FEB 04	18S UD 60948 19762	0 FT

Add

Edit

Insert

Delete

Settings

OK

Cancel

Effects Management Tools

II Marine Expeditionary Force Information Management

- ⊕ Good Toolset, getting better
- ⊕ Used in Current Fires
- ⊕ Must maintain version control with AFATDS
- ⊕ More EMT = Less AFATDS Boxes
 - MEF COC only needs two AFATDS boxes
 - Does UOC still need four?

The Good

II Marine Expeditionary Force Information Management

- ⊕ A Wealth of Features
- ⊕ Track Management
- ⊕ Transmit Overlays
- ⊕ Many Map Types Supported
- ⊕ Intel Toolset

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The Bad

II Marine Expeditionary Force Information Management

⊕ Processor Load

- Stopped TrackPlot when not being used (multiple keystrokes required)
- Shutdown Alerts or Comm Subsystem when not needed
- Memory Leaks

⊕ Map Data Handling

⊕ Crashes too often

⊕ No network installation/management

- Need Client-Server Architecture

The Ugly

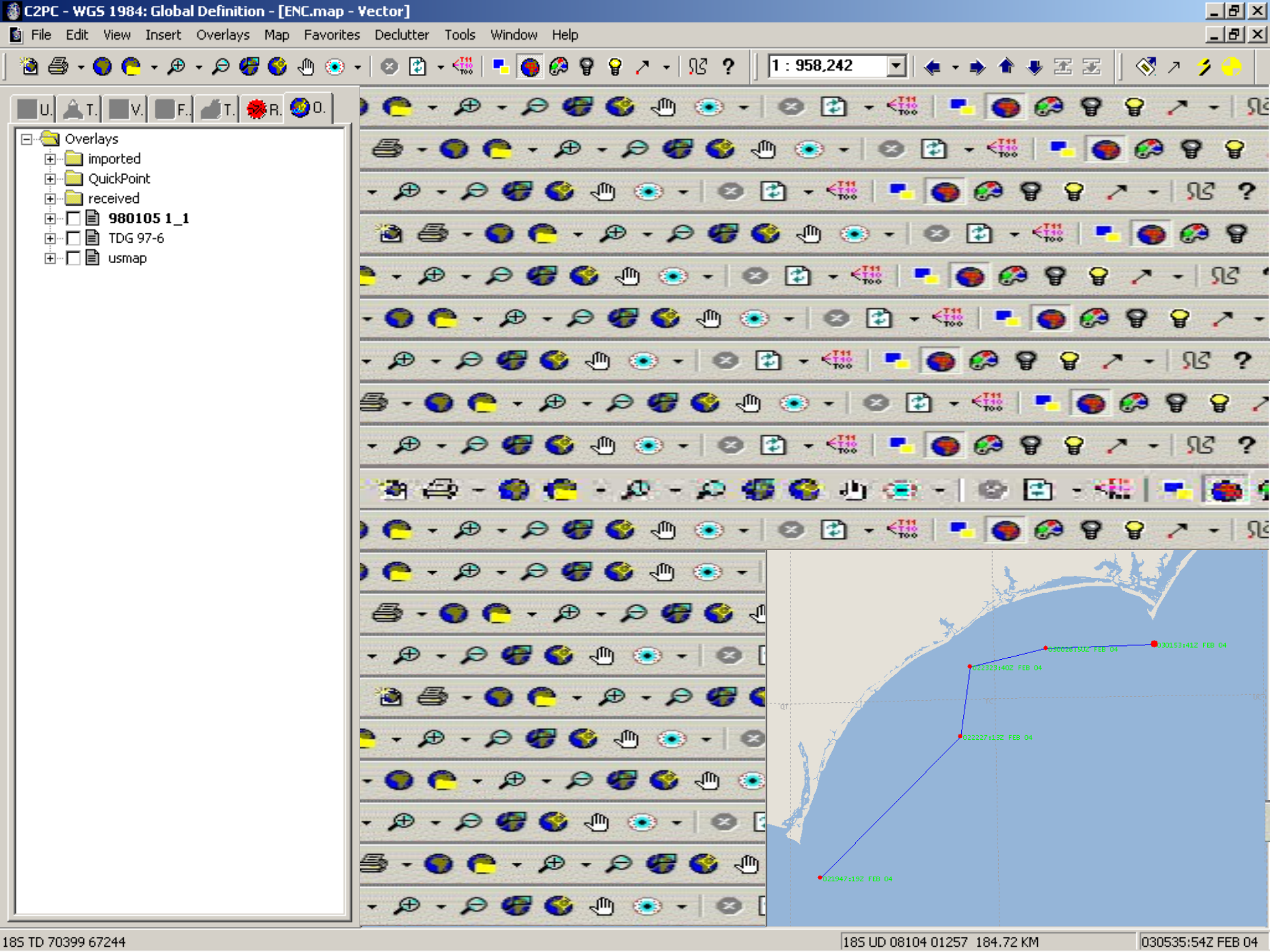
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⊕ User Interface

- Human-Computer Interface (HCI) Design is as much Art as Science
- C2PC doesn't compare well with
 - ✓ FalconView
 - ✓ ADOCS
 - ✓ Anything...

⊕ Next Slide: A Sample User Interface

- Software Engineers User Interface
- What C2PC could become



Programmatic Challenges

II Marine Expeditionary Force Information Management

⊕ Wide Variety of Users

- Marines
- Army
- Air Force
- Coast Guard
- Navy

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...Challenges (cont)

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Marine Corps User Community

- ⊕ Battalion up to MEF Staff
- ⊕ Planners
- ⊕ Operators
- ⊕ Intelligence Users
- ⊕ Aviators
- ⊕ The MAGTF does everything!

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Some User Requests

II Marine Expeditionary Force Information Management

- ⊕ Improve Tactical Line, Point Area Symbology Tool
 - Not User-Friendly
 - Difficult to see on screen
- ⊕ Print Units in TrackPlot
- ⊕ Better Drawing Tools
 - “If they were as good as PowerPoint, it would be a huge timesaver”

Some (more) User Requests

II Marine Expeditionary Force Information Management

- ⊕ Better Integration of Injectors
 - EMT Functional Geometry can't be transferred directly to Overlay Manager
- ⊕ Better Track Management Tools
- ⊕ Map Data Interface (loading maps) is difficult to use or understand
- ⊕ Track Add/Delete/Modify. C2PC is the biggest threat in existence to the COP

Even (more) User Requests

II Marine Expeditionary Force Information Management

- ⊕ Require tracks meet AFATDS spec
- ⊕ Ad Nauseum!
- ⊕ The Point is this...
 - Are User Analyses identifying the best requirements?
 - Do we have a good process to prioritize requirements and build 100% tools

...Challenges (cont)

H Marine Expeditionary Force Information Management

⊕ Requirements Development Process

- No Limit to “Mouths to Feed”
- Strongest Personalities have undue influence
- Lack of Field Surveys, User Analysis
- No Operational Requirements Document
- Result: Lots of 50% to 70% solutions

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Where do we go from here?

II Marine Expeditionary Force Information Management

- ⊕ I don't care about anyone but USMC
- ⊕ Essential to understand users
- ⊕ Look carefully at processes
 - Requirements Generation
 - Field Testing
 - User Data Collection
- ⊕ USMC users have no loyalties to applications - they will use what works

A C2PC Project Office?

II Marine Expeditionary Force Information Management

- ⊕ We need a fleet proponent for MAGTF Situational Awareness
- ⊕ Air, Ground: No different. We need a common toolset
- ⊕ If something better comes along, C2PC is dead in the fleet
- ⊕ Competition is good - it worked in the auto industry - let the strong survive

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Summar

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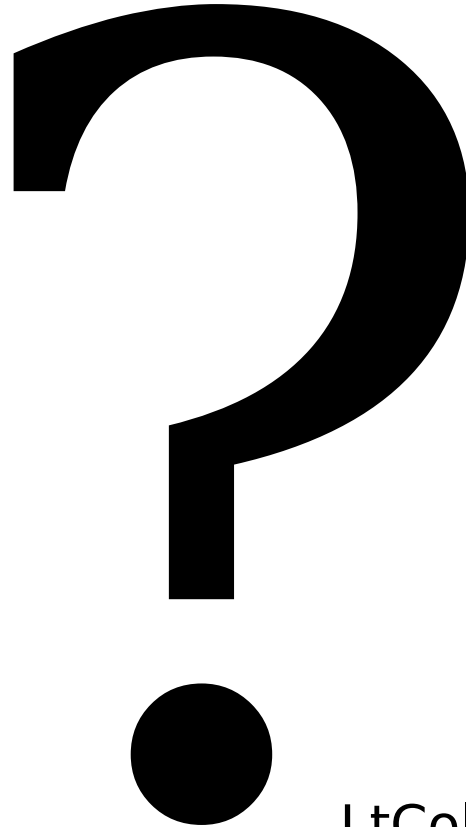
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- ⊕ Job required multiple applications
- ⊕ C2PC was a useful tool, but flawed
- ⊕ HCI creates training requirements
- ⊕ Many mouths to feed
- ⊕ Who is the MAGTF SA Proponent?
- ⊕ Come to our MEFEX: 29 Feb - 6 Mar

Question

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